



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

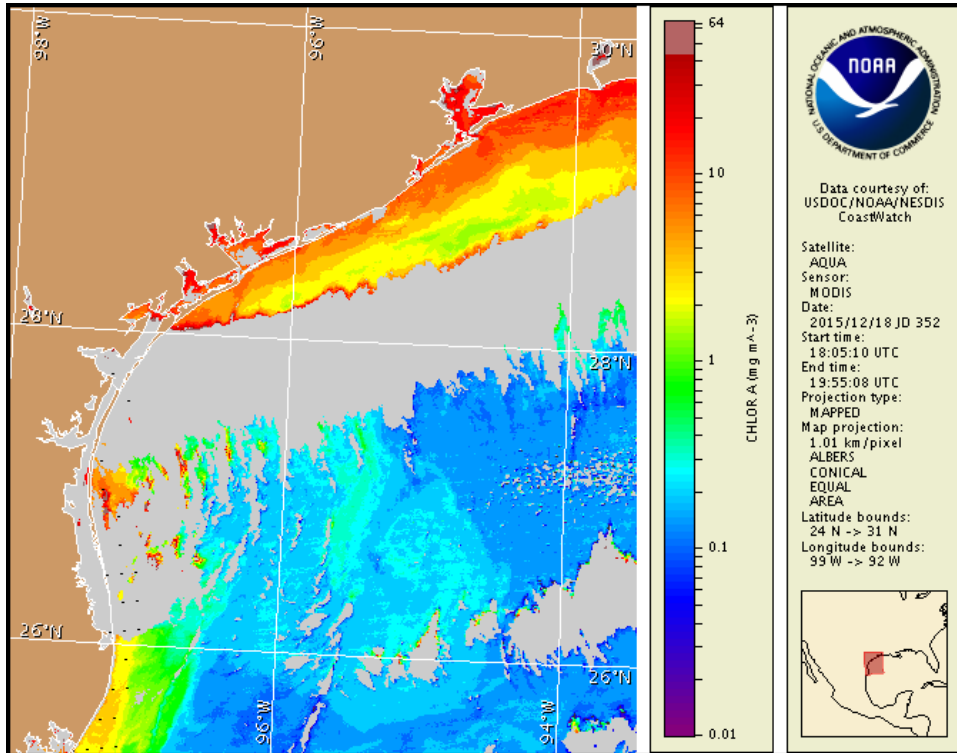
Monday, 21 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 14, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 11 to 17: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/envconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

*Karenia brevis* (commonly known as Texas red tide) ranges from not present to background concentrations along the coast of Texas. No respiratory irritation is expected Monday, December 21 through Monday, December 28.

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations.

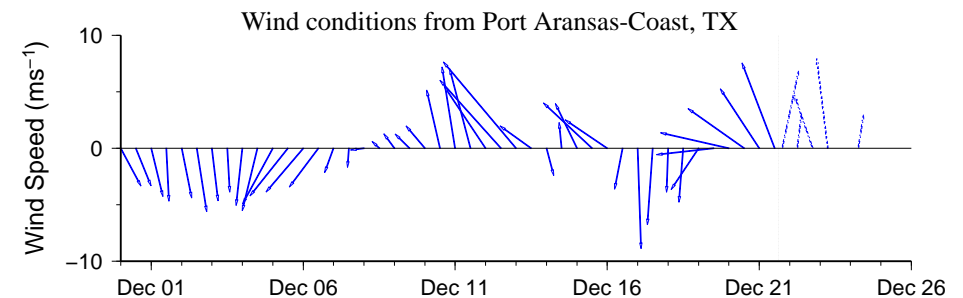
## Analysis

Sampling from the Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, indicates that *Karenia brevis* concentrations range between 'not present' and background (TAMU; 12/18-21). For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (12/18, shown left) is obscured by clouds along and offshore the Texas coast from the Matagorda Island region to the Rio Grande, limiting analysis. Patches of elevated to high chlorophyll (2-17  $\mu\text{g/L}$ ) are visible along and offshore the Texas coast from Sabine Pass to Matagorda Island. Elevated chlorophyll is not indicative of the presence of *K. brevis* and is most likely due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a potential maximum transport of 50 km south from the Port Aransas region from December 18 to 24.

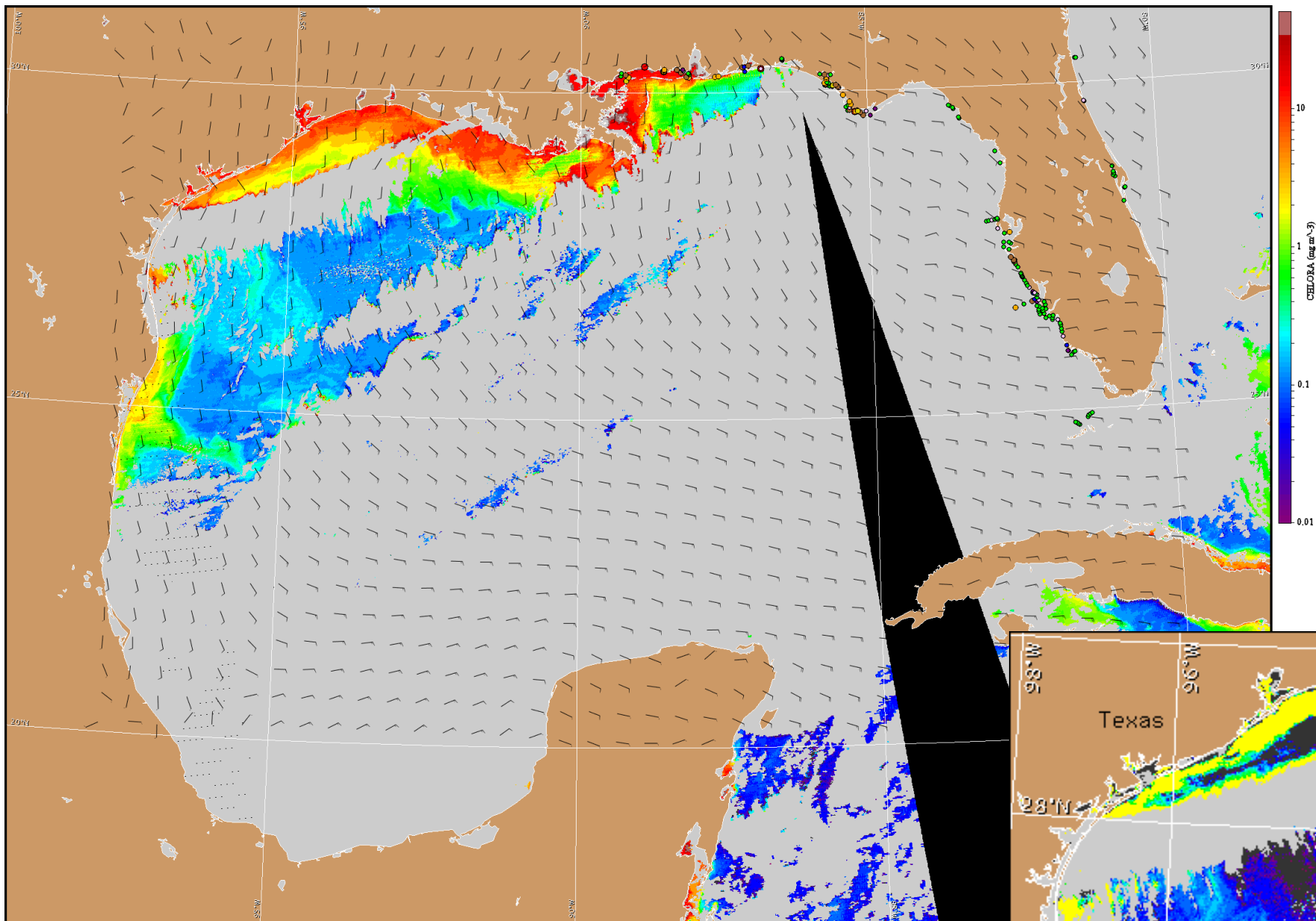
Derner, Keeney



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

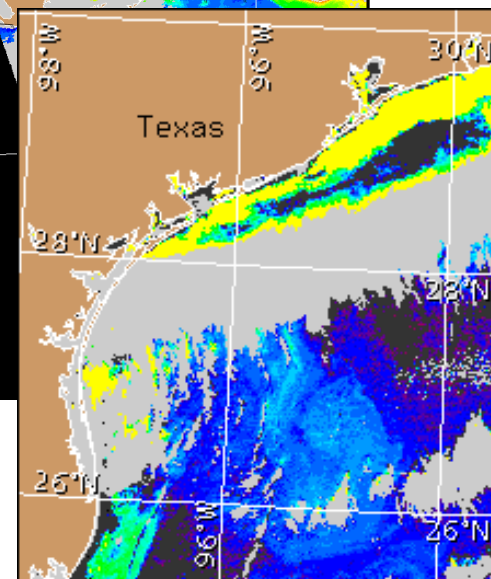
## Wind Analysis

**Port Aransas to Baffin Bay:** South winds (20+kn, 10+m/s) today becoming southwest (10-15kn, 5-8m/s) this afternoon. South winds (5-10kn, 3-5m/s) tonight. Southeast winds (5-15kn, 3-8m/s) Tuesday becoming south (10-20kn, 5-10m/s) Tuesday night. Southwest winds (10-20kn) Wednesday becoming southeast (5-10kn) Wednesday night through Thursday. South winds (10-15kn) Friday.



Satellite chlorophyll image and forecast winds for December 22, 2015 06Z with points representing cell concentration sampling data from December 11 to 17: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).